

Title (en)

ORGANIC ELECTROLUMINESCENT MATERIALS AND DEVICES

Title (de)

ORGANISCHE ELEKTROLUMINESZENTE MATERIALIEN UND VORRICHTUNGEN

Title (fr)

MATÉRIAUX ET DISPOSITIFS ÉLECTROLUMINESCENTS ORGANIQUES

Publication

EP 3447053 B1 20230809 (EN)

Application

EP 18200227 A 20150213

Priority

- US 201414188297 A 20140224
- EP 15000452 A 20150213

Abstract (en)

[origin: EP2910553A1] The present invention relates to novel organic compounds comprising at least two different selections selected from the group consisting of N-phenyl carbazole, dibenzofuran, dibenzothiophene, triphenylene, aza-(N-phenyl carbazole), aza-dibenzofuran, aza-dibenzothiophene, and aza-triphenylene. The compounds are useful for organic light-emitting diodes. The compounds are also useful for charge-transport and charge-blocking layers, and as hosts in the light-emissive layer for organic light emitting devices (OLEDs).

IPC 8 full level

C07D 491/04 (2006.01); **C07D 209/82** (2006.01); **C07D 221/18** (2006.01); **C07D 487/04** (2006.01); **C07D 495/04** (2006.01); **H10K 50/15** (2023.01); **H10K 85/10** (2023.01)

CPC (source: EP KR US)

C07D 209/82 (2013.01 - KR); **C07D 307/91** (2013.01 - KR); **C07D 333/76** (2013.01 - KR); **C07D 405/06** (2013.01 - KR); **C07D 409/06** (2013.01 - KR); **C07D 409/14** (2013.01 - EP US); **C09K 11/06** (2013.01 - KR); **H10K 50/00** (2023.02 - KR); **H10K 50/11** (2023.02 - US); **H10K 85/657** (2023.02 - US); **H10K 85/6572** (2023.02 - US); **H10K 85/6576** (2023.02 - US); **H10K 2101/10** (2023.02 - US)

Citation (examination)

- WO 2010083359 A2 20100722 - UNIVERSAL DISPLAY CORP [US], et al
- MAKOTO KIMURA ET AL: "Spirocycle-Incorporated Triphenylamine Derivatives as an Advanced Organic Electroluminescent Material", CHEMISTRY LETTERS, vol. 29, no. 2, 1 February 2000 (2000-02-01), pages 192 - 193, XP055759981, ISSN: 0366-7022, DOI: 10.1246/cl.2000.192

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

EP 2910553 A1 20150826; EP 3447053 A1 20190227; EP 3447053 B1 20230809; KR 102273740 B1 20210706; KR 102394667 B1 20220509; KR 20150100493 A 20150902; KR 20210080306 A 20210630; TW 201542760 A 20151116; TW I638028 B 20181011; US 2015243904 A1 20150827; US 9647217 B2 20170509

DOCDB simple family (application)

EP 15000452 A 20150213; EP 18200227 A 20150213; KR 20150001865 A 20150107; KR 20210080063 A 20210621; TW 104100794 A 20150109; US 201414188297 A 20140224